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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/772,756	01/30/2001	Mohammed Nafie	TI-31308	9448
23494	7590	06/03/2005	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265				DEPPE, BETSY LEE
			ART UNIT	PAPER NUMBER
				2637

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/772,756	NAFIE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Betsy L. Deppe	2637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 07 March 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,4,12,14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1, 4, 12, 14 and 15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed March 7, 2005 have been fully considered but they are not persuasive.
2. In response to applicant's argument on page 4 that "Widdowson does not disclose receiving data packets," it is inherent/implicit that the wideband and narrowband signals in Widdowson are comprised of data packets. Since the radio signals are generated for transmission to a receiver in a GSM or CDMA system (for example, see page 1, lines 3-9), it is inherent/implicit that these radio signals contain information, i.e. data packets. Therefore, Widdowson discloses the claimed invention.
3. In response to applicant's argument on page 5 that "Roberts does not discloses receiving packets," column 3, lines 11-15 describes a "DSSS . . . receive packet." Furthermore, since FHSS radio 22 (see Figure 1) is receiving information in a FHSS network, it is inherent/implicit that it is receiving a packet thereby reading on the claimed invention.
4. In response to applicant's argument on page 6 that "Roberts does not subtract packets" and that "neither of the cited references teach or suggest every limitation of claims 14 and 15," one cannot show nonobviousness by attacking references

individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

A rejection under 35 U.S.C. 103(a) does not require a single reference teaching or suggesting the recited features in order to establish a prima facie case of obviousness. Prima facie obviousness may be established if references when combined teach or suggest all the claimed limitations. MPEP §2143. If a single reference discloses the recited features as applicant argues, a rejection under 35 U.S.C. 102 would be appropriate. In this case, Widdowson teaches features which are not disclosed by Roberts.

### ***Claim Objections***

5. Claim 1 is objected to because of the following informalities: on lines 11 and 12, “narrowband packets” should be “narrow band packets” in order to be consistent with lines 5-6. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Widdowson (WO 99/38270 cited in the Office Action mailed December 7, 2004). Figure 10 of Widdowson discloses the claimed invention including receiving data packets comprising wideband packets and narrowband packets; identifying the one or more narrowband packets; subtracting the narrowband packets (40) and decoding the received data packets after the one or more narrowband packets have been subtracted (21, 18 and 19). (See page 9, line 16-29) It is implicit/inherent that the narrowband packets must be identified before they can be subtracted from the received data packets.

8. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Roberts (US Patent No. 6,577,670 B1 cited in the Office Action mailed July 9, 2004). Figures 1 and 2 disclose the claimed invention including a wideband radio section 10) and a narrow band radio section (20). (See also column 2, line 31 - column 3, line 64 and column 4, lines 43-47)

***Claim Rejections - 35 USC § 103***

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Widdowson as applied to claim 1 above, and further in view of Roberts. Widdowson discloses the claimed invention except that the narrowband radio unit comprises Bluetooth systems and that the narrow band signals are Bluetooth signals.

Roberts discloses that Bluetooth systems transmits narrowband signals that interfere with wider bandwidth devices and signals. (See column 1, lines 29-35 and column 2, lines 40-44) Since Bluetooth signals are also narrowband signals, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the method disclosed by Widdowson to a communication system that is comprised of Bluetooth systems in order to remove all narrowband signal interference to accurately recover the transmitted wideband signal. The type or source of narrowband signal does not affect the functionality of the method and apparatus disclosed by Widdowson.

11. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roberts as applied to claim 12 above, and further in view of Widdowson. Roberts discloses the claimed invention including receiving a packets comprising both at least one desired wide band packet and one or more Bluetooth packets. However, Roberts does not disclose that the narrow band radio section decodes the one or more Bluetooth packet and the wideband radio section subtracts the decoded Bluetooth packets from the received data packet before decoding the received data packet.

Figures 10 and 11 of Widdowson teaches decoding the narrow band packets and subtracting the decoded Bluetooth packets from the received data packet (40) before decoding the received data packet (21, 18, 19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of Widdowson in the circuit disclosed by Roberts in order to avoid the requirement of filters with very sharp cut-offs to attenuate the narrowband signal. (See Widdowson, page 2, lines 11-14)

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (571) 272-

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3054. The examiner can normally be reached on Monday, Wednesday and Thursday (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272 - 2988. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Betsy L. Deppe  
Primary Examiner  
Art Unit 2637